

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/587,909

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A transmitting facility (20) for a multipoint-to-point synchronous CDMA network (~~NET~~), comprising a unit (23) for generating a CDMA-coded information signal, said facility further comprising a unit (21) for generating an acquisition signal, ~~with encoding being performed using~~ and encoding said acquisition signal with an acquisition code which is different from said acquisition signal and which is not a CDMA communication code, the signal level of the acquisition signal being telemetrically adjustable, and a transmitter for transmitting the acquisition signal ~~being transmitted~~ in the same transmission channel as the information signal.

2. (Currently Amended) A receiving facility (10) for a multipoint-to-point synchronous CDMA network (~~NET~~), comprising a unit (15) for receiving and detecting a CDMA-coded information signal and a unit (11, 12) for receiving and detecting an acquisition signal, wherein said unit (11, 12) for receiving and detecting an acquisition signal comprises a detector for detecting said acquisition signals with an acquisition code which is different from said acquisition signal and which is not a CDMA communication code, and a logical correlator (11) for correlating at least two serially transmitted, identical acquisition signals ~~with an acquisition code which is not a CDMA communication code~~, and an accumulator (12) for accumulating the

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correlated acquisition signals, by means of which the detection of the acquisition signal can be carried out, the acquisition signal being transmitted in the same transmission channel as the information signal.

3. (Currently Amended) An acquisition method for a multipoint-to-point synchronous CDMA network (~~NET~~) comprising at least two terminals (~~2, 3, 4, 5~~) and a center (~~1~~), the terminals (~~2, 3, 4, 5~~) transmitting CDMA-coded information signals and acquisition signals to the center (~~1~~), wherein in order to achieve synchronization, each of the terminals (~~2, 3, 4, 5~~) transmitting serially to the center (~~1~~) at least two identical acquisition signals whose levels are telemetrically adjustable by the center (~~1~~) and which are transmitted in the same transmission channel as the information signal, and said center (~~1~~) detecting the acquisition signal ~~by logically correlating (~~11~~) the acquisition signal~~ with an acquisition code which is not a CMDA communication code, logically correlating the detected acquisition signals and ~~by~~ subsequently accumulating (~~12~~) the correlated acquisition signals.

4. (Currently Amended) A transmitting facility (~~20~~) as claimed in claim 1, characterized in that the acquisition code is a Barker code.

5. (Currently Amended) A receiving facility (~~10~~) as claimed in claim 2, characterized in that at least two logical correlators and at least two accumulators are provided for detecting at least two acquisition signals with different time relations to the CDMA signals and/or for allowing the use of two or more acquisition codes.

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6. (Currently Amended) A receiving facility ~~(10)~~ as claimed in claim 2, characterized in that at least one matched filter serves to implement one or more correlators.

7. (Currently Amended) A transmitting facility ~~(20)~~ as claimed in claim 1, characterized in that the length of the acquisition code is shorter than the length of the CDMA communication code by at least a factor of five.

8. (Currently Amended) A receiving facility ~~(10)~~ as claimed in claim 2, characterized in that prior to or after the accumulation, squaring is performed.

9. (Currently Amended) A method as claimed in claim 3, ~~characterized in that after~~
estimation further comprising the steps of estimating the number of colliding terminals ~~(2, 3, 4,~~
~~5), and using a plurality of~~ different contention-resolving techniques ~~are used~~.

10. (Currently Amended) A method as claimed in claim 3, characterized in that the center ~~(1)~~ is adapted to telemetrically specify the transmitted power of the acquisition signals of the terminals ~~(2, 3, 4, 5)~~ in such a way that the sum level of all simultaneously transmitted acquisition signals is at least 10 dB lower than the sum level of all simultaneously transmitted information signals.

11. (Currently Amended) A receiving facility ~~(10)~~ as claimed in claim 2, characterized in that the acquisition code is a Barker code.

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12. (Currently Amended) A method as claimed in claim 3, characterized in that the acquisition code is a Barker code.

13. (Currently Amended) A receiving facility ~~(10)~~ as claimed in claim 5, characterized in that at least one matched filter serves to implement one or more correlators.

14. (Currently Amended) A receiving facility ~~(10)~~ as claimed in claim 2, characterized in that the length of the acquisition code is shorter than the length of the CDMA communication code by at least a factor of five.

15. (Previously presented) A method as claimed in claim 3, characterized in that the length of the acquisition code is shorter than the length of the CDMA communication code by at least a factor of five.

16. (Previously presented) A method as claimed in claim 3, characterized in that prior to or after the accumulation, squaring is performed.

17. (Currently Amended) A receiving facility ~~(10)~~ for a multipoint-to-point synchronous CDMA network (NET), comprising a unit ~~(15)~~ for receiving and detecting a CDMA-coded information signal and a unit ~~(11, 12)~~ for receiving and detecting an acquisition signal, wherein said unit ~~(11, 12)~~ for receiving and detecting an acquisition signal comprises a detector for detecting said acquisition signal with an acquisition code which is different from said acquisition signal and which is not a CDMA communication code, a logical correlator ~~(11)~~ for correlating at least two serially transmitted, identical acquisition signals ~~with an acquisition code which is not a~~

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~~CDMA communication code~~, and an accumulator ~~(12)~~ for accumulating the correlated acquisition signals, by means of which the detection of the acquisition signal can be carried out, the acquisition signal being transmitted in the same transmission channel as the information signal, and the signal level of the acquisition signal being telemetrically adjustable.